

Claims

- [c1] 1. A hem joint for a vehicular closure structure assembled from stamped sheet metal, comprising:
an inner panel;
an outer panel joined to said inner panel by a hem flange formed from said outer panel and folded over at least a portion of the periphery of said inner panel; and
a plurality of mechanical interlock zones extending between said inner panel and said outer panel, with each of said interlock zones comprising:
a raised circular anchor pin formed integrally from said inner panel prior to assembly of said inner panel with said outer panel; and
a coined cap formed integrally with said hem flange of said outer panel, with said coined cap being formed in place by coining said hem flange over said raised circular anchor pin, so as to completely encapsulate an end portion of said anchor pin.
- [c2] 2. A hem structure according to Claim 1, further comprising an adhesive placed between said inner panel and said outer panel before said hem flange is formed.
- [c3] 3. A hem structure according to Claim 2, wherein said

adhesive is filled with granular material.

[c4] 4. A method of manufacturing a vehicular closure structure from stamped sheet metal, comprising the steps of: stamping an outer panel; stamping an inner panel; forming a plurality of circular anchor pins from said inner panel, with each of said anchor pins extending inwardly from said inner panel within a region of said inner panel which is overlaid by an inner portion of said outer panel when said closure panel is assembled; fixturing said outer and inner panels together; folding a portion of said outer panel over said region of the inner panel containing said circular anchor pins; and coining an integral circular cap from said inner panel over each one of said plurality of anchor pins.

[c5] 5. A method of manufacturing a vehicular closure structure according to Claim 4, further comprising the steps of: applying an adhesive to said region of said inner panel containing said circular anchor pins; placing said vehicular closure structure in a storage medium for a length of time sufficient to allow said adhesive to cure.

[c6] 6. A method of manufacturing a vehicular closure struc-

ture from stamped sheet metal, comprising the steps of:
stamping an outer panel;
stamping an inner panel;
forming a plurality of circular anchor pins extending inwardly from said inner panel within a region of said inner panel which is overlaid by an inner portion of said outer panel when said closure structure is assembled;
applying an adhesive to said region of said inner panel containing said circular anchor pins;
fixturing said outer and inner panels together;
folding a portion of said outer panel over said region of the inner panel containing said circular anchor pins;
coining an integral circular cap from said inner panel over each one of said plurality of anchor pins; and
placing said vehicular closure structure in a storage medium for a length of time sufficient to allow said adhesive to at least partially cure.

[c7] 7. A method according to Claim 6, wherein said adhesive is filled with granular material.

[c8] 8. A method according to Claim 6, wherein said adhesive is comprises a two-component adhesive.

[c9] 9. A method according to Claim 6, wherein said adhesive is comprises a single-component adhesive.